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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,851	07/08/2003	Gregory E. Howard	TI-35904	9136

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EXAMINER	
CLARK, JASMINE JHIHAN B	
ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,851

Applicant(s)

HOWARD ET AL.

Examiner

Jasmine J Clark

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 31-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 10-12, 14, 16, 20, 24-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6-9, 13, 15, 17-19, 21-23, 28 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. Claims 31-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group II, there being no allowable generic or linking claim. Election was made **without** traverse.
2. It is suggested that Applicants cancel claims 31-41 in response to this Office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5, 10-12, 14, 16, 20, 24-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly et al. (US 5,798,567) in view of Kelkar et al. (US 6,084,308).

Kelly shows in Fig. 4 a first package part 51 having top and bottom surfaces, the top and bottom surfaces having pads for I/O terminals; a cavity in the first package part 51; a chip 41 mounted in the cavity, the chip having an active surface including an IC and contact pads; a second package part 43 having a top and bottom surfaces, the bottom surface having a first plurality of I/O terminals aligned with the chip contact pads, and a second plurality of I/O terminals aligned with the top surface I/O terminals of the first package part 51; the second package part 43 further having connector lines 55 between the first and second plurality of terminals; and interconnection elements 58 and 53 between the chip contact pads and the plurality of terminals of the second package part 43, and between the second plurality of terminals of the second package part and the top surface terminals of the first package part 51. However, Kelly fails to teach having pads for I/O terminals at the bottom surface of the first package part 51. Kelkar teaches having pads for I/O terminals 304 at a bottom surface of a package. Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made for Kelly to include pads for I/O terminals at the bottom surface of the first package part for external connections, as is notoriously known.

Concerning claims 5, 1-12, 14, 16, 20, 24-27 and 29, please see the above discussion and see Fig. 4.

Allowable Subject Matter

4. Claims 2-4, 6-9, 13, 15, 17-19, 21-23, 28, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reasons for allowance: the applied references fail to teach the limitations as set forth in claims 2-4, 6-9, 13, 15, 17-19, 21-23, 28, and 30.

References Cited

5. Similar structure to Kelly et al. (US 5,798,567) are Poetzingier (US 5,724,230), Hoffman et al. (US 5,578,869), Sakurai (US 5,523,586), Tachibana (US 5,889,323), Imai (US 5,901,050), Lin et al. (US 6,188,578 B1), Ahmad et al. (US 5,790,384).

Telephone Inquiry Contacts

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasmine J Clark whose telephone number is (571) 272-1726. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2815

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jjbc/05/12/04

JASMINE CLARK
PRIMARY EXAMINER

Jasmine Clark